

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PDEUP0D1X0

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Euphorbia platysperma* Engelm. ex S. Watson  
**COMMON NAME:** Dune spurge, flatseed spurge; flatseed sandmat  
**SYNONYMS:** *Chamaesyce platysperma* (Engelm. ex S. Wats.) Shinnars  
**FAMILY:** Euphorbiaceae

**AUTHOR, PLACE OF PUBLICATION:** Engelm. ex S. Watson, Geological Survey of California, Botany 2: 482-483. 1880.

**TYPE LOCALITY:** USA, Arizona, southern Arizona, near the mouth of the Colorado River. This is incorrect since the mouth of the Colorado River does not occur in Arizona. According to Steinman & Felger (Aliso 16: 48. 1997), the type is "perhaps actually from Sonora".

**TYPE SPECIMEN:** HT: MO. E. Palmer s.n., 1869. IT: GH-47724, NY-263172. IST: US-58627.

**TAXONOMIC UNIQUENESS:**

**DESCRIPTION:** Short-lived ephemeral or annual (possibly facultatively perennial) with deeply buried roots, that forms sprawling mounds from 0.5 to 1 meter in diameter. The entire plant is glabrous. The stems are arching-ascending when young, but become more prostrate with age; long stem internodes are pale orange. Leaves are opposite and elliptic, 5-10 mm long. The cyathea is yellowish, and the involucre is bell-shaped and solitary in the leaf axils. Staminate flowers number around 50, while the pistillate flower consists of a style divided to the base. The seeds are large, and the unusual ventral ridge and curved, overhanging raphe are unique among the seeds of subgenus *Chamaesyce* (Steinman and Felger, 1997).

**AIDS TO IDENTIFICATION:** It has long glabrous internodes that are sticky and accumulate a covering of sand.

**ILLUSTRATIONS:** B&W line drawing (Reichenbacher, 1986: fig. 2)  
B&W line drawing (Felger, 1980: fig. 13, 14)  
Color photo of type (MO, in [http://mobot.mobot.org/cgi-bin/search\\_vast](http://mobot.mobot.org/cgi-bin/search_vast))  
Color photo of isotype (Palmer NY-263172, in <http://207.156.243.8/emu/vh/specimen.php?irn=408835>)  
Color photo of isosyntype (Palmer US-58627, in <http://ravenel.si.edu/botany/types/fullRecords.cfm?myFamily=>)

**TOTAL RANGE:** From southern California (Imperial [reported], Riverside, San Bernardino and San Diego [reported] counties), southwestern Arizona, and Sonora, Mexico.

**RANGE WITHIN ARIZONA:** Extends into Arizona from Mexico, where the Yuma Desert dune fields extend into the state east of San Luis, near Yuma (Yuma Co.). Thought to be historical, but recently collected in 2001 by G. Rink (ASC-76353) next to railway in Yuma.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Annual herb.

**PHENOLOGY:** Flowers February to May. October – April in Mexico (Steinman and Felger, 1997).

**BIOLOGY:** Sensitive to freezing weather.

**HABITAT:** Sandy soils in dune habitats.

**ELEVATION:** Below 500 ft (153 m).

**EXPOSURE:**

**SUBSTRATE:** Sand, commonly wind-blown.

**PLANT COMMUNITY:** Sonoran Desert, with Creosotebush scrub, Sonoran desertscrub, and dunescrub communities. Associated species include: *Ephedra trifurca* (long-leaf Mormon-tea), *Eriogonum deserticola* (desert Eriogonum), and *Larrea tridentata* (creosotebush).

**POPULATION HISTORY AND TRENDS:** Unknown. According to NatureServe (2005), “There is one occurrence in California and there is a historical occurrence in Arizona. No status information from Mexico is available.” According to Reiser (1994), it was reported from near Thousand Palms in the Coachella Valley, California, but has not been seen since 1914. The present status in Southern California is poorly known. Little collection information is available, and the dune systems in the Coachella Valley have been heavily impacted in recent years. Potential habitat is found in the dune system near Clark Dry Lake and several other similar, but smaller dune systems in the Anza-Borrego Desert. It may be under-reported due to superficial similarities with several other common spurges found on the southern deserts. Given the dearth of extant sites known from the region, all native populations should be protected. (Reiser 1994).

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:**

None (USDI, FWS 1996)  
[C2 under *Chamaesyce platysperma* USDI,  
FWS 1993]  
[C2 under *Chamaesyce platysperma* USDI,  
FWS 1990]  
[C2 USDI, FWS 1985]  
[C2 USDI, FWS 1983]  
[C1 USDI, FWS 1980]

**STATE STATUS:**

None

**OTHER STATUS:**

None

**MANAGEMENT FACTORS:****PROTECTIVE MEASURES TAKEN:****SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:** DOD – Barry M. Goldwater Air Force Range.

**SOURCES OF FURTHER INFORMATION****REFERENCES:**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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**ADDITIONAL INFORMATION:**

**Revised:** 2002-09-19 (SMS)  
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